



## FOR IMMEDIATE RELEASE:

### Fueled by recent changes, the high-end inertial business is entering in a new era of prosperity

Extracted from: High End Inertial Systems Market and Technology report from Yole Développement - November 2017

**LYON, France – November 20, 2017:** The increasing geopolitical risks, the ending oil crisis and the upcoming robotic era are clearly impacting positively the evolution of the high-end inertial systems industry, announces [Yole Développement \(Yole\)](#) in its new report, titled [High-End Inertial Systems Market & Technology report](#).



Defense & military market segment is still the largest user of inertial systems with 4% CAGR<sup>1</sup> between 2016 and 2022. In parallel, the commercial aerospace segment is showing an increasing market share. The industrial sector, from its side, is also showing a similar growth, with hot emerging applications, like autonomous vehicles, driving some big interests.

In this new report, Yole's analysts underlines the emergence of new applications like structure/machine monitoring, autonomous vehicles, and microsatellites. According to them, such market segment should increase from US\$ 50 million to US\$150 million between 2016 and 2022, driven by innovative technologies and market's demand.

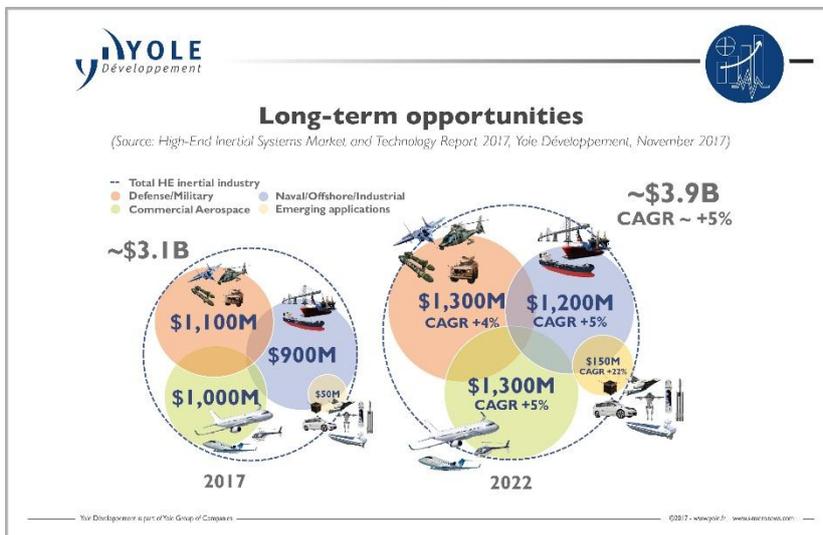
Yole's high-end inertial analysis is offering today a comprehensive understanding of the industry evolution with technical issues and market trends. This new report provides market data on high performance accelerometers, gyroscopes, IMU and INS. From SiMEMS, Quartz-based MEMS, Fiber Optic Gyroscope, Ring Laser Gyroscope or Hemispheric Resonant Gyroscope and others technologies (Dynamically Tuned Gyroscope), it also details each application and key existing markets, especially the most promising emerging ones. Under this report, Yole's analysts identified functions that are used, critical specification requirements, level of assembly and technology choices.

<sup>1</sup> CAGR : Compound Annual Growth Rate

What are the major drivers? What will the market look like in 2022? The “More than Moore” market research and strategy consulting company is showing the major trends of the high-end inertial system industry with deep understanding of inertial sensor value chain, infrastructure & players for the inertial business.

“Defense and commercial aerospace markets have always been the backbone of the high-end inertial system market, and that is still true today, but emerging applications are whetting the appetite of many players”, comments **Dr. Guillaume Girardin, Technology & Market Analyst at Yole.**

The traditional markets, like defense, commercial aerospace and space applications, have returned to growth after a big slowdown from 2010 2015. For the last two years, the market has been evolving positively thanks to increasing geopolitical risks, and benefiting from the reinvigoration of the commercial aerospace business. And the end of the oil crisis in 2015, combined with increasing purchasing power coming from eastern regions, especially China, has definitely benefited this market. The space market is still evolving at its own pace, with the increasingly important robotic approach coming from players like SpaceX, Blue Origin enabling reusable rocket launchers, democratizing the space market.



In other words, the high-end inertial system market is recovering from a lean period that could bring it, in the long term, into a prosperous time with higher volumes. At long term, the market should be propelled by two major trends: the robotic approach and the growth of industrial applications.

“At Yole, we estimate that the high-end inertial system market has reached the US\$3

billion milestone in 2017,” asserts Guillaume Girardin from Yole. “Defense makes up 36 % of this, with commercial aerospace comprising 33 %. Industrial, offshore and maritime applications account for the remaining 31 %.”

With an estimated 5% CAGR<sup>2</sup> for the five next years, the high-end inertial system market is on a good track. The industry is now looking

<sup>2</sup> CAGR : Compound Annual Growth Rate

for emerging opportunities to sustain its growth, and this is what we highlight in this report.

Among all applications, emerging ones identified in Yole's report, previous edition, are still gaining interest. These new applications span from robotics to industrial automation, autonomous cars, ships, planes and drones, structure monitoring, space conquest with reusable rockets and microsatellites. Such uses are expected to add growth. Most players are looking at these new opportunities, partnering with end-users to understand the needs and requirements to adapt the specifications of high-end inertial systems in term of accuracy, volume, shielding and cost.

Currently, most of those applications are in R&D and prototyping phases, but requirements and standards are being defined today, and should impact the market for years. The race into the robotic era is under way and many sensors are in competition. Inertial systems have advantages, and will definitely take part in this revolution that will have a deep impact across the whole industry.

These results will be presented at the [High End Sensors International Conference](#) in March 2018. More information will come soon on [i-micronews.com](#), "Where to meet us" section.

A detailed description of this report is now available on [i-micronews.com](#), [MEMS & Sensors report section](#).

**ABOUT THE REPORT:****High End Inertial Systems Market and Technology report**

*Fueled by geopolitical risks rising defense investments, commercial aerospace and fast-growing applications, this new prosperous cycle of the high end inertial business will bring the market to new heights.* - Produced by Yole Développement (Yole) part of Yole Group of Companies.

**Companies cited in the report:**

Airbus, Al Cielo, Analog Devices, AOSense, Arazim, Astrium, Autoflug, Boeing, CASC China Aerospace, Civitanavi, Sagem/Colibrys, Doosan, Elektropribor, Emcore, Endevco, Epson Toyocom, Fizoptika, Freescale, GEM Elettronica, Gladiator Technologies, Hitachi, Honeywell, IAI, iMAR, Innalabs, InterSense, InvenSense, iXBlue, JAE, Kearfott, Kongsberg, KVH, L3 Tech, Lumedyne Technologies, MEMSense, Mikrosistemler ... [Full list](#)

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**Dr. Guillaume Girardin** works as a Market & Technology Analyst for MEMS devices and technologies at Yole Développement, the “More than Moore” market research and strategy consulting company. Guillaume holds a Ph.D. in Physics and Nanotechnology from Claude Bernard University Lyon I and a M.Sc. in Technology and Innovation Management from EM Lyon School of Business..

**ABOUT YOLE DEVELOPPEMENT – WWW.YOLE.FR**

Founded in 1998, Yole Développement has grown to become a group of companies providing marketing, technology and strategy consulting, media and corporate finance services, reverse engineering and reverse costing services and well as IP and patent analysis. With a strong focus on emerging applications using silicon and/or micro manufacturing, the Yole group of companies has expanded to include more than 80 collaborators worldwide covering MEMS and image sensors, Compound Semiconductors, RF Electronics, Solid-state lighting, Displays, software, Optoelectronics, Microfluidics & Medical, Advanced Packaging, Manufacturing, Nanomaterials, Power Electronics and Batteries & Energy Management. The “More than Moore” market research, technology and strategy consulting company Yole Développement, along with its partners System Plus Consulting, PISEO and KnowMade, support industrial companies, investors and R&D organizations worldwide to help them understand markets and follow technology trends to grow their business. . For more information, visit [www.yole.fr](http://www.yole.fr) and follow Yole on [LinkedIn](#) and [Twitter](#).

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